Preliminary Classification:

Proposed Class:

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand comer of the letter of transmittal accompanying the application

papers, for example 'Proposed Class 2, subclass 129.' " M.P.E.P. § 601, 7th ed.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Zaf Zafirelis, John Marous, Yih-Choung Yu, Kirk Lehmann,

Greg Johnson

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title):

METHOD AND SYSTEM FOR CLOSED CHEST BLOOD FLOW SUPPORT

CERTIFICATION UNDER 37 C.F.R. § 1.10*

(Express Mail label number is mandatory.) (Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date <u>September 13, 2000</u>, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number <u>EL707030125US</u>, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Tracey L. Milka

(type or print name of person mailing paper)

Signature of person mailing paper

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

*WARNING: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will **not** be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(New Application Transmittal [4-1]—page 1 of 11)

1. Type of Application

This new application is for a(n)

(check one applicable item below)

X) (Original (nonprovisional)
]	Design
	1	☐ Plant
WARNII	VG:	Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.
WARNII	VG:	Do not use this transmittal for the filing of a provisional application.
NOTE:	TR	ne of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION ANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.
]	Divisional.
]	Continuation.
]	Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. § 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
 - (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(f) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

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WARNING:	When the last dependency of a provisional application falls on a Satural, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).
1	The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.
3. Papers	Enclosed
	ired for filing date under 37 C.F.R. \S 1.53(b) (Regular) or 37 C.F.R. \S 1.153gn) Application
<u>62</u> Pag	ges of specification
9 Pag	ges of claims
27 She	eets of drawing
WARNING:	DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).
inve the on t	ntifying indicia, if provided, should include the application number or the title of the invention, ntor's name, docket number (if any), and the name and telephone number of a person to call if Office is unable to match the drawings to the proper application. This information should be placed he back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top see page" 37 C.F.R. § 1.84(c)).
	(complete the following, if applicable)
u	he enclosed drawing(s) are photograph(s), and there is also attached a PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).
☐ fo	ormal
⊠ ir	ıformal
B. Other	Papers Enclosed
_	es of declaration and power of attorney
	es of abstract
0_ Oth	
4. Addition	al papers enclosed
	mendment to claims
	calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
	Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)
☐ Pi	reliminary Amendment
☐ In	formation Disclosure Statement (37 C.F.R. § 1.98)
□ Fc	orm PTO-1449 (PTO/SB/08A and 08B)
□ C	tations

	-	ation of Biological Deposit
C	perta	ssion of "Sequence Listing," computer readable copy and/or amendment ning thereto for biotechnology invention containing nucleotide and/or acid sequence.
	Autho	ization of Attomey(s) to Accept and Follow Instructions from Representa-
	Spec	ll Comments
] Other	
5. Dec	laration	or oath (including power of attorney)
NOTE:	the prior by all or application the signal by a state being file declaration person un executed	recuted declaration is not required in a continuation or divisional application provided that conprovisional application contained a declaration as required, the application being filed is ever than all the inventors named in the prior application, there is no new matter in the being filed, and a copy of the executed declaration filed in the prior application (showing re or an indication thereon that it was signed) is submitted. The copy must be accompanied ment requesting deletion of the names of person(s) who are not inventors of the application of the declaration in the prior application was filed under § 1.47, then a copy of that must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning der § 1.47 has subsequently joined in a prior application, then a copy of the subsequently declaration must be filed. See 37 C.F.R. §§ 1.63(d)(1)—(3).
NOTE:	is directed abbreviate country of	on filed to complete an application must be executed, identify the specification to which it identify each inventor by full name including family name and at least one given name, without in together with any other given name or initial, and the residence, post office address and citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 .63(a)(1)-(4).
NOTE:	as prescr as prescr is that inv this para	torship of a nonprovisional application is that inventorship set forth in the oath or declaration and by § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration need by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship ntorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under apply accompanied by the fee set forth in § 1.17(f) is filed supplying or changing the name of the inventor or inventors." 37 C.F.R. § 1.41(a)(1).
ŗ,	_ Encl	sed
	Exec	ted by
		(check all applicable boxes)
		ventor(s).
		gal representative of inventor(s). 7 C.F.R. §§ 1.42 or 1.43.
	i	int inventor or person showing a proprietary terest on behalf of inventor who refused to sign reannot be reached.
		☐ This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F.R. § 1.47 is also attached. See item 13 below for fee.
(2	Not	nclosed.
NOTE:	the U.S. may be t	filing is a completion in the U.S. of an International Application or where the completion of oplication contains subject matter in addition to the International Application, the application eated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.
		pplication is made by a person authorized under 37 C.F.R. \S 1.41(c) on ehalf of all the above named inventor(s).
		(New Application Transmittal [4-1]—page 4 of 11)

(The declaration or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).
Showing that the filing is authorized. (not required unless called into question. 37 C.F.R. § 1.41(d))
6. Invent rship Statem nt
WARNING: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.
The inventorship for all the claims in this application are:
☐ The same.
or
 Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
☐ is submitted.
☐ will be submitted.
7. Language
NOTE: An application including a signed oath or declaration may be filed in a language other than English. An English translation of the non-English language application and the processing fee of \$130.00 required by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within such time as may be set by the Office. 37 C.F.R. § 1.52(d).
🗵 English
☐ Non-English
☐ The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).
8. Assignment
☐ An assignment of the invention toCardiac Assist Technologies, Inc
☐ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.
🗵 will follow.
NOTE: "If an assignment is submitted with a new application, send two separate letters-one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).
WARNING: A newly executed "CERTIFICATE UNDER 37 C.F.R. § 3.73(b)" must be filed when a continuation-

WARNING: A newly executed "CERTIFICATE UNDER 37 C.F.R. § 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

(New Application Transmittal [4-1]—page 5 of 11)

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9.	Certif	ied	Cai	กข

Certified copy(ies) of application(s)

	_ <u></u>		
Country	Appln. No.		Filed
Country	Appln. No.		Filed
Country	Appin. No.		Filed
from which priority is claimed			
is (are) attached.			
will follow.			
NOTE: The foreign application formin declaration. 37 C.F.R. § 1.55(g the basis for the claim a) and 1.63.	for priority must	be referred to in the oath or
NOTE: This item is for any foreign pr U.S. application or Internationa § 120 is itself entitled to priorit PAGES FOR NEW APPLICATI CLAIMED.	al Application from which ty from a prior foreign app ON TRANSMITTAL WHE	this application cl dication, then com	aims benefit under 35 U.S.C. nplete item 18 on the ADDED
10. Fee Calculation (37 C.F.R.	. 9 1.10)		
A. 🛚 Regular application			
	CLAIMS AS FILE	D	
Number filed	Number Extra	Rate	Basic Fee 37 C.F.R. § 1.16(a) \$690.00
Total Claims (37 C.F.R. § 1.16(c)) 51 - 20) = 31	× \$ 18.00	558.00
Independent Claims (37 C.F.R. § 1.16(b)) 4 - 3	= 1	× \$ 78.00	78.00
Multiple dependent claim(s), if any (37 C.F.R. § 1.16(d))		+ \$260.00	
☐ Amendment cancellin☐ Amendment deleting☐ Fee for extra claims	multiple-dependenc	ies is enclosed	d .
NOTE: If the fees for extra claims are r prior to the expiration of the notice of fee deficiency. 37 C	time period set for respo	t be paid or the cla nse by the Patent	ims cancelled by amendment, and Trademark Office in any
	ing Fee Calculation		\$_1,326.00
B. Design application (\$310.00—37 C.F.R.	§ 1.16(f))		
Fil	ing Fee Calculation		\$

(New Application Transmittal [4-1]-page 6 of 11)

c .		ant application 80.00—37 C.I		1))			
	(4			calculation		\$	
11. Sm	nall E	ntity Stateme	_				
		atement(s) that (are) attached.		g by a small o	entity under 37	C.F.R. § 1.9 and 1.2	27
WARNIA	th an in a a ap 30 ap re st	ne status is available fect any other application of an application of an application. A nonpostication or in the ference to the praction the process at the	ole and desired. oplication or pant upon the application under § 1. ution application as to continue arovisional application, or a patent if the relatement in the for application of the small e	Status as a smatent, including a lication or patent 53 as a continua in under § 1.53(d) of entitlement to a cation claiming be reissue application prior application in the patent antity basic statute.	all entity in one ap applications or pa in which the statu- tion, division, or co i)), or the filing of a small entity status benefit under 35 U ion may rely on a oplication or the re on or in the paten and status as a sr ory filing fee will be	oplication or patent in which polication or patent does natents which are directly as has been established. The priting of the continuing or reissue application require for the continuing or reissue. I.S.C. § 119(e), 120, 121, statement filed in the priessue application includes to r includes a copy of the priest of the continuity is still proper are treated as such a reference of the priest of the continuity is still proper are treated as such a reference of the continuity is still proper are treated as such a reference of the continuity is still proper are treated as such a reference of the continuity is still proper are treated as such a reference of the continuity is still proper are treated as such a reference of the continuity is still proper are treated as such a reference of the continuity is still proper are at the continuity is still proper at the continuity is at the continuity is at the continuity in the continuity is at the continuity at the continuity is at the continuity in the continuity at the	ot or he ng es ue or or a
WARNIN	Cá		make the requi			ns signing the stateme 509.03, 6th ed., rev. 2, Ju	
		(c	omplete the	following, if a	applicable)		
	Sta	itus as a smal	I entity was	claimed in pi	rior application	1	
		/		, filed on		, from which benef	it
	is t	peing claimed	for this app	lication under	•		
	35	U.S.C. §	• • •				
			•				
		_	365(c),				
	ar	nd which statu	is as a smal	l entity is still	proper and c	lesired.	
		A copy of t	he statemen	t in the prior	application is	included.	
				% of A, B or			
			.	•	,		
i	are file		s of the date o	f timely paymen		olished and a refund reques ne two-month period is no	
I2. Red	quest	for Internation	onal-Type S	earch (37 C.F	F.R. § 1.104(d))	
			(comple	te, if applical	ole)		
		ase prepare ar en national ex				application at the time	е

13. Fe	e Payn	n nt Being Mad at This Time			
	☐ Not	Enclosed			
		No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. subsequently.)	§ 1.16(e)	can be p	oaid
2	I Enc	losed			
	X	Filing fee	\$	1,326.	00
		Recording assignment (\$40.00; 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".)	\$		
		Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached (\$130.00; 37 C.F.R. §§ 1.47 and 1.17(i))	\$		
		For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52(d) and 1.17(k))	\$		
		Processing and retention fee (\$130.00; 37 C.F.R. §§ 1.53(d) and 1.21(l))	\$		
		Fee for international-type search report (\$40.00; 37 C.F.R. § 1.21(e))	\$		
NOTE:	failing to 37 C.F.F either th	R. § 1.21(I) establishes a fee for processing and retaining any application pursuant to 37 C.F.R. § 1.53(f) and the complete the application pursuant to 37 C.F.R. § 1.53(f) and the R. §§ 1.53 and 1.78(a)(1), indicate that in order to obtain the beneve basic filing fee must be paid, or the processing and retention for year from notification under § 53(f).	is, as well a fit of a prior	s the change U.S. applica	es to ition,
		Total fees enclosed	\$	1,326.0	<u>)0</u>
14. Me		of Payment of Fees			
Ω		ck in the amount of \$_1,326.00			
		rge Account No.	in the	amount	of
		uplicate of this transmittal is attached.			
NOTE:	Fees sho § 1.22(b	ould be itemized in such a manner that it is clear for which purpose).	e the fees ar	e paid. 37 C.	.F.R.

(New Application Transmittal [4-1]—page 8 of 11)

15. Authorization to Charg Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 19–0737
 - 37 C.F.R. § 1.16(a), (f) or (g) (filing fees)
 - 37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)
- NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.
 - ☐ 37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
 - 37 C.F.R. § 1.17(a)(1)–(5) (extension fees pursuant to § 1.136(a)).
 - ☐ 37 C.F.R. § 1.17 (application processing fees)
- NOTE: ". . A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).
 - 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))
- NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).
- NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . the issue fee. . . " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

(New Application Transmittal [4-1]-page 9 of 11)

16. Instructions as to Overpayment

Refund

.	adodolio to to trotpaymont
	" Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).
	be retained by discastin, in requestion, by distance to a deposit account.
ĺΣ	Credit Account No. 19-0737

Reg. No. 30,587

Tel. No. (412) 621-9222

Customer No.

SIGNATURE OF PRACTITIONER

Ansel M. Schwartz

(type or print name of attorney)
One Sterling Plaza

201 N. Craig Street, Suite 304

P.O. Address

Pittsburgh, PA 15213

(New Application Transmittal [4-1]—page 10 of 11)

	Incom	poration by reference of add d pages
	pr st th	heck the following item if the application in this transmittal claims the benefit o rior U.S. application(s) (including an international application entering the U.S age as a continuation, divisional or C-I-P application) and complete and attach e ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF RIOR U.S. APPLICATION(S) CLAIMED)
		Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S Application(s) Claimed
		Number of pages added
		Plus Added Pages for Papers Referred to in Item 4 Above
		Number of pages added
		Plus added pages deleting names of inventor(s) named in prior application(s who is/are no longer inventor(s) of the subject matter claimed in this application
		Number of pages added
		Plus "Assignment Cover Letter Accompanying New Application"
		Number of pages added
X	State	ment Where No Further Pages Added
	•	no further pages form a part of this Transmittal, then end this Transmittal with is page and check the following item)